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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/563,769	01/09/2006	Gianfranco Toscano	TOSC3001/JEK	3216
23364	7590	09/21/2007	EXAMINER	
BACON & THOMAS, PLLC			ABU ALI, SHUANGYI	
625 SLATERS LANE			ART UNIT	
FOURTH FLOOR			PAPER NUMBER	
ALEXANDRIA, VA 22314			1755	
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			09/21/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/563,769	TOSCANO, GIANFRANCO	
	<b>Examiner</b>	<b>Art Unit</b>	
	Shuangyi Abu-Ali	1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 50-66 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 50-66 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

(1)

***Claim Objections***

Claim 57 is objected to because of the following informalities: please change 100 mm<sup>2</sup> to 100 mm<sup>2</sup>. Appropriate correction is required.

(2)

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 50-52, 62-64 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear what does "sponge" mean?

Claims 50, 58, 60 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims recite "selected quality". It is undefined.

(3)

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

It is noted that claims 64-66 are product-by-process claims. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 77F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) (citations omitted).

Claim 64 is rejected under 35 U.S.C. 102(b) as being anticipated by US Pub. No. 2002/0117086 to Shi et al.

Regarding claim 64, Shi discloses a cement composition comprising water, cement, foam agent, and cellulose ([0053]).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

(4)

Claims 50-51 and 53-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pub. No. 2002/0117086 to Shi et al., in view of U.S. patent No. 4,698,366 to Laan.

Regarding claims 50 and 55, Shi et al. disclose a process of making a cement article comprising the following steps ([0053]):

- 1) Mixing cement and water;
- 2) Adding fiber such as cellulose fiber, and
- 3) Adding foaming agent.

But they are silent about adding cement twice as applicants set forth in claim 50.

However, it would have been obvious to one of ordinary skill in the art at the time of invention by applicants to adding the cement as applicant set forth in claim 50, motivated by the fact that Laan, also drawn to making cement composition, disclose that adding the cement portionly is possible to adjust the weight per unit of volume and

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consequently the compressive strength of the cement (col. 1, lines 35-42 and col. 2, lines 38-43).

Regarding claims 51, 62 and 63, Laan discloses that the spherical expand foam polystyrene is used in cement composition (col. 3, line 6).

Regarding claims 53-54, Shi et al. disclose that foam can be introduced into the cement composition by gas forming. An alkaline salt of fatty acid, which is soap, is used in the composition ([0053]).

(5)

Claims 57 is rejected under 35 U.S.C. 103(a) as being unpatentable over combined teaching of US Pub. No. 2002/0117086 to Shi et al. and U.S. patent No. 4,698,366 to Laan, further in view of U.S. Patent No. 5,643,359 to Soroushian et al.

Regarding claim 57, combined teaching of Shi et al. and Laan disclose a process of making cement article as applicant set forth in claim 50.

But they are silent about the specific size of the paper used in the composition.

However, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to use paper in combined teaching of Shi et al. and Laan cement composition, motivated by the fact that Soroushian et al., also drawn to cement composition, disclose that the paper are about 0.1-30 mm long and 0.001-0.1 mm in diameter dispersed in cement composition can provide desirable workability, finishability to the cement composition (abstract and col. 13, lines 29-50).

(6)

Claim 52, 56,58-59 and 61-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over combined teaching of US Pub. No. 2002/0117086 to Shi et al. and U.S. patent No. 4,698,366 to Laan, further in view of US Pub. No. 2003/0055132 to Symons.

Regarding claim 52, combined teaching of Shi et al. and Laan disclose a process of making cement article as applicant set forth in claim 50. However, they are silent ground sponge polystyrene used in the composition as applicant set forth in claim 52, however,, Symons, also drawn to water-based hardenable cement mixtures, discloses using particles of a thermoplastic resin foam (i.e., spongy material) in said mixture, wherein the said thermoplastic resin foam is ground polystyrene foam ( [0016], [0043]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have added said ground polystyrene spongy material to the cement mixture of Shi et al, as taught by Symons, motivated by the fact that Symons discloses that during processing the thermoplastic resin foam tends to melt and to migrate to the surface of the product, to produce a hard water resistant skin (([0047]).

The recitations of Applicants' claims 56, 58, 59, 61 and 62 can be found in Symons on page 2, paragraph [0048], page 1, paragraph [0021] and [0049], page 2, paragraphs [0040],[0041] to [0044], and page 4, Examples 1, 2, and 3).

(7)

Claim 65 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Pub. No. 2002/0117086 to Shi et al, in view of US Pub. No. 2003/0055132 to Symons.

Regarding claim 65, Shi et al. disclose a cement mixture comprising cement, water, cellulose, foam agent as set forth above. but, they are silent ground sponge polystyrene and cork used in the composition as applicant set forth in claim 52, Nevertheless, Symons, also drawn to water-based hardenable cement mixtures, discloses using particles of cork in said mixture.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have added said ground cork to the cement mixture of Shi et al, as taught by Symons, motivated by the fact that Symons the finished product from such composition having good machine-ability and nail-ability ([0023]).

(8)

Claim 66 is rejected under 35 U.S.C. 103(a) as being unpatentable over combined teaching of U.S Pub. No. 2002/0117086 to Shi et al and US Pub. No. 2003/0055132 to Symons, further in view of U.S. Patent No. 5,987,831 to Assche.

Regarding claim 66, combined teaching of Shi et al. and Symons disclose a cement composition set forth above.

But, they are silent about using pigment in the cement composition.

However, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to use pigment in the cement composition, motivated by the fact that Assche disclose that it is well known to use pigment in cement composition to provide desired color to cement composition (col. 1, lines 11-20).



(9)

***Response to Arguments***

Applicant's arguments, see pages 5-11, filed 06/29/2007, with respect to the rejection(s) of claim(s) 50 under rejection over 35 U.S. C. 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the statement above

(10)

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Such prior art is listed on PTO-892. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shuangyi Abu-Ali whose telephone number is 571-272-6453. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SA

  
**J. A. LORENZO**  
**SUPERVISORY PATENT EXAMINER**